ABSTRACT OF THE DISCLOSURE

An inertia device is constructed by both suspension structure and micro-electroplating structure. The suspension structure may be manufactured by surface micromachining technique of sacrificial layer process or bulk micromachining technique incorporating with thin film process. One side of the suspension structure is arranged firmly to a supporting piece, so that another side of the suspension structure is in a suspension state. The suspension side of the suspension structure is made as micro-electroplating structure through the micro-electroplating process and functions as inertia mass for an inertia sensor. The size of the micro-electroplating structure may be changed through the micro-electroplating process, such that the inertia sensor may be adapted for sensing in different levels. Furthermore, a microstructure of high aspect ratio may be achieved by taking the advantage of a metal during the selection of a processing material, such that the objective for lateral sensing or driving signal may be fulfilled.